



November 7, 2019

Mr. Mark Wejkszner
Environmental Program Manager – Air Quality
Pennsylvania Department of Environmental Protection
Northeast Regional Office
2 Public Square
Wilkes-Barre, PA 18701

**Re: Application to Transition from Title V Operating Permit No. 39-00055 to State Only Operating Permit
B. Braun Medical Inc. Facility in Allentown, Pennsylvania**

Dear Mr. Wejkszner,

As the Department is aware, B. Braun Medical Inc. (B. Braun) operates a medical device manufacturing facility, located at 901 Marcon Blvd. in Allentown, Pennsylvania (Facility), pursuant to air quality permits issued by the Department. These existing air quality permits are Title V Operating Permit No. 39-00055, which expires on August 31, 2021 (the “Existing Title V Permit”), and Plan Approval No. 39-00055A, which expires on October 31, 2020. Because emissions from the Facility have consistently remained substantially below all applicable Title V emission thresholds, and the Facility is not otherwise classified as a Title V facility based on applicable federal regulations, B. Braun desires to transition from operation under the Existing Title V Permit to operate under a State Only Operating Permit (SOOP). B. Braun therefore submits this application (Application) to enable the Department to re-designate the Facility as a non-major source of air emissions.

This Application consists of the explanatory narrative provided through this cover letter, the relevant SOOP forms developed by the Department, a demonstration of facility-wide potential emissions for all regulated pollutants, copies of municipal notifications (including copies of United States Postal Service (USPS) certified mail slips), and the requisite permit application fee. Additional details are provided below. Note that at the time of submittal, the USPS certified mail return receipts have not been received. B. Braun will submit copies of the delivery notifications to PADEP under separate cover once received.

Facility Overview

B. Braun manufactures and sterilizes medical devices at the Facility. Emissions sources at the Facility include sterilization operations, ancillary equipment and other small insignificant sources. The sterilization operations are subject to a federal categorical hazardous air pollutant (“HAP”) standard promulgated at 40 CFR Part 63, Subpart O, establishing maximum achievable control technology (“MACT”) standards for ethylene oxide emissions from sterilization facilities (“Subpart O”). Subpart O does not include a requirement that affected sources secure a Title V permit if the facility is not otherwise a major source of regulated pollutants.

In addition, the potential to emit (PTE) from the Facility for all regulated pollutants (including HAPs) is below major source thresholds for all pollutants. The relevant PTE for each regulated pollutant is established and ensured based on the application of enforceable standards requiring the use of control devices and compliance with applicable emissions limits. As demonstrated in this Application, all such enforceable standards are currently reflected in the Existing Title V Permit and will continue to be reflected in the SOOP. For this reason, the aggregate PTE for all emission sources at the Facility is already (and has been) below all major source thresholds.

Minor Status Compliance

The Facility's PTE for all regulated pollutants is below major source thresholds, as displayed in Attachment C. The PTE for each source has been calculated based on maximum operation (i.e., 8,760 hours per year for each unit, with the exception of emergency engines and fire pumps, which are limited to 500 hours per year). Refer to Attachment C for detailed calculations, including identification of all relevant emission factors. Note, to ensure that Facility-wide PTE is properly calculated to remain below major source thresholds, the Facility-wide PTE accounts for all sources permitted under the Existing Title V Permit and Plan Approval No. 39-00055A. B. Braun is not proposing to incorporate Plan Approval No. 39-00055A into the SOOP as construction is not yet complete. Therefore, the plan approval sources are not included in the attached SOOP forms.

Regulatory Review

The Facility's engines (Source IDs 003, 004, 111, and 113) are subject to 40 CFR Part 60, Subparts IIII and/or JJJJ and 40 CFR Part 63, Subpart ZZZZ. The sterilizers (Source IDs 101 through 108) and Aeration Room (Source ID 110) are subject to 40 CFR Part 63, Subpart O. B. Braun proposes to incorporate into the SOOP all applicable requirements from these regulations, as currently included in the Existing Title V Permit.

Proposed Permit Changes

B. Braun is requesting minor revisions to the permit as a result of recent changes at the Facility.

Operation of the following sources at the Facility has been discontinued and, therefore, B. Braun requests that these sources, associated stacks, and permit conditions not be included in the SOOP:

- Source ID 112: Emergency Generator 1
- Source ID 116: F-Line

B. Braun notified PADEP via a letter on June 22, 2019 that Source ID 112 was decommissioned. B. Braun is also proposing to remove Source ID 116 from the operating permit as the F-line operations are no longer a source of emissions at the Facility and, therefore, can be removed from B. Braun's operating permit.

B. Braun has enclosed the required application fee in the form of a check for \$750 made payable to the "Commonwealth of Pennsylvania Clean Air Fund."

If you have any questions concerning this Application, please contact me at (484) 240-8817 or eric.geder@bbraunusa.com.

Sincerely,
B. Braun Medical, Inc.



Eric Geder, CSP
EH&S Manager

cc: Christina Lynch, P.E. – ALL4 LLC

Enclosures: Attachment A: SOOP Application Forms
Attachment B: Compliance Review Form
Attachment C: Potential Emissions Calculations
Attachment D: Municipal Notification Letters

ATTACHMENT A
SOOP APPLICATION FORMS



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

STATE-ONLY PERMIT APPLICATION

FOR OFFICIAL USE ONLY

State-Only OP Number: _____

Reviewed by: _____

Date: _____

Comments: _____

Section 1 - General Information

1.1 Application Type

Type of permit for which application is made: (Check one)

 Initial Renewal Operating Permit No. _____ Application Revision

1.2 Plant Information

Federal Tax ID: 23-2116774 Firm Name: B BRAUN MEDICAL INCPlant Code: 1 Plant Name: B BRAUN MED/ALLENTOWNNAICS Code: 339112 SIC Code: 3841Description of NAICS Code: Surgical and Medical Instrument ManufacturingDescription of SIC Code: Surgical and Medical Instruments and ApparatusCounty: Lehigh Municipality: Hanover TownshipLatitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant Entrance

1.3 Contact Information

Name: Eric Geder Title: EH&S ManagerAddress: 901 Marcon Blvd.
Allentown, PA 18109Telephone Number: (484) 240-8817Email Address: Eric.Geder@bbraunusa.com

1.4 Certification of Truth, Accuracy and Completeness

Note: This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.

(Signed) Rex R. Boland Date: 11-7-19Name (Typed): Rex Boland Title: VP/GM of Allentown Operations

Please read instructions carefully before completing this application.

Section 2 - Site Information – See Attachment C for additional details.

2.1 Potential Emission Estimates for the Site

Provide the estimated potential emission for the site BEFORE and AFTER utilizing the proposed restriction(s) and/or limitation(s).

Pollutant or CAS No.	Potential Emission BEFORE taking Limitations (TPY)	Potential Emission AFTER taking Limitations (TPY)
<i>NO_x</i>	<i>38.91</i>	<i>38.91</i>
<i>CO</i>	<i>38.92</i>	<i>38.92</i>
<i>SO₂</i>	<i>0.69</i>	<i>0.69</i>
<i>VOC</i>	<i>6.67</i>	<i>6.67</i>
<i>PM</i>	<i>6.04</i>	<i>6.04</i>
<i>PM_{2.5}</i>	<i>8.45</i>	<i>8.45</i>
<i>PM₁₀</i>	<i>8.45</i>	<i>8.45</i>
<i>Pb</i>	<i>2.09E-04</i>	<i>2.09E-04</i>
<i>CO₂</i>	<i>50,662.95</i>	<i>50,662.95</i>
<i>N₂O</i>	<i>0.10</i>	<i>0.10</i>
<i>CH₄</i>	<i>0.96</i>	<i>0.96</i>
<i>Single Highest HAP</i>	<i>3.97</i>	<i>3.97</i>
<i>Total HAP</i>	<i>5.01</i>	<i>5.01</i>

* Provide all supporting calculation methods as an attachment at the end of this application.

2.2 Facility Type

Is this facility a Synthetic Minor Facility? Yes No

If yes, go to Section 2.3, "Synthetic Minor Facility".

If no, go to Section 3, "Site Inventory".

IMPORTANT: Note that all Synthetic Minor Facilities must be able to meet the proposed restriction(s) and/or limitation(s) immediately upon the submission of this application. By signing the Certification of Compliance in Section 13 of this application, the facility for which a Synthetic Minor Status is proposed will be deemed a Synthetic Minor Facility according to the restriction(s) and/or limitation(s) proposed upon receipt of the application by the Department, unless the Department determines that the facility is unable to meet the Synthetic Minor requirements at a later date.

Please read instructions carefully before completing this application.

2.3 Synthetic Minor Facility Information (to be completed by all facilities seeking Synthetic Minor Status)

Synthetic Minor Status for this facility can be taken at the: Source Level AND/OR Site Level

If limitation(s) and/or restriction(s) can be taken at the site level (for all sources within this facility), complete the following questions, otherwise please go on to Section 3, "Site Inventory".

Synthetic Minor Status for the Entire Site is achievable through the following restrictions: (Please check all that apply and describe in detail what is/are proposed):

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production/Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input checked="" type="checkbox"/>	Control Devices	<i>Catalytic Oxidizer and Wet Scrubber associated with the sterilization process</i>
<input checked="" type="checkbox"/>	Emissions Limitations	<i>40 CFR Part 63, Subpart O limits as displayed in TVOP No. 39-00055 and Attachment C</i>
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor

The Facility's potential emissions for all regulated NSR pollutants and HAPs are below respective major source thresholds, and the Facility is therefore already a Synthetic Minor Facility and an area source of HAP. B. Braun proposes to incorporate into the state only operating permit the same enforceable restrictions currently included in the Facility's existing Title V Permit which restrict PTE for all regulated pollutants below major source levels.

Note: If Section 2.3 is completed and there are no additional restrictions proposed at the source level, the applicant can omit Subsections 5, 6, and 7 in Sections 5, 6, and 7 for all sources in this permit application.

Please read instructions carefully before completing this application.

2.4 Compliance Method for the Site (for Synthetic Minor Facilities only)

Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 2.3.

- a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s) listed in Section 2.3:
B. Braun proposes to continue to comply with the provisions included in the Facility's existing Title V permit, which include the requirements of 40 CFR Part 63, Subpart O, to demonstrate compliance with all applicable emission standards, which ensure that PTE remains below major source levels.

- b. Describe what is to be reported in the compliance report:
B. Braun is not proposing to submit annual compliance reports.

- c. Reporting start date: ***Not Applicable (N/A)***

- d. Indicate the frequency for submitting compliance report as explained above: ***N/A***

Please read instructions carefully before completing this application.

Section 3 - Site Inventory

List all air pollution sources, control equipment, emission points and fuel material locations at this site. Duplicate this page as necessary. For renewals, only list sources not included in current permit.

Unit ID No.	Company Designation	Unit Type
003	<i>Emergency Generator – 605hp Diesel</i>	<i>Process</i>
004	<i>Fire Pump – 100hp Diesel</i>	<i>Process</i>
101	<i>Sterilizer – 1000 Cu Ft</i>	<i>Process</i>
102	<i>Sterilizer – 1000 Cu Ft</i>	<i>Process</i>
103	<i>Sterilizer – 1000 Cu Ft</i>	<i>Process</i>
104	<i>Sterilizer – 1000 Cu Ft</i>	<i>Process</i>
105	<i>Sterilizer – 1200 Cu Ft</i>	<i>Process</i>
106	<i>Sterilizer – 1250 Cu Ft</i>	<i>Process</i>
107	<i>Sterilizer – 3700 Cu Ft</i>	<i>Process</i>
108	<i>Sterilizer – 130 Cu Ft</i>	<i>Process</i>
110	<i>Aeration Room</i>	<i>Process</i>
111	<i>Emergency Generator 2</i>	<i>Process</i>
112	<i>Emergency Generator 1</i>	<i>Process</i>
113	<i>Fire Pump 1</i>	<i>Process</i>
116	<i>F-Line</i>	<i>Process</i>
117	<i>Introcan</i>	<i>Process</i>
C001	<i>Catalytic Oxidizer</i>	<i>Control Device</i>
C002	<i>Wet Scrubber Deoxx Unit</i>	<i>Control Device</i>
S01	<i>Stk– Cata.Oxidizer</i>	<i>Point of Air Emission</i>
S02	<i>Stk– Deoxx Unit</i>	<i>Point of Air Emission</i>
S03	<i>Stk– Emer.Generator 1</i>	<i>Point of Air Emission</i>
S04	<i>Stk– Emer.Generator 2</i>	<i>Point of Air Emission</i>
S05	<i>Stk– Fire Pump</i>	<i>Point of Air Emission</i>
S08	<i>Emergency Gen (605hp) Stack</i>	<i>Point of Air Emission</i>
S09	<i>Fire Pump (100hp) Stack</i>	<i>Point of Air Emission</i>
S21	<i>F-Line Stack</i>	<i>Point of Air Emission</i>
S22	<i>Introcan Stack</i>	<i>Point of Air Emission</i>
S23	<i>Common Rear Sterilizer Exhaust Stack</i>	<i>Point of Air Emission</i>

Please read instructions carefully before completing this application.

Section 4 - Source Group (Optional)

4.1 Source Group Definition

This section applies to new State-Only Operating Permit applications only.

Define groups of source(s) that are subject to one or more applicable requirements that apply to all source(s) in the group.

Group No.	Source ID (for source(s) in this group)
<i>Group 1</i>	<i>101, 102, 103, 104, 105, 106, 107, 108, 110</i>
<i>Group 2</i>	<i>003, 004, 111, 113</i>

4.2 Applicable Requirements for Source Groups

For renewals, only list group level requirements not included in the current State-Only Operating Permit. If there are no changes, check the box to the right.

No changes from current State-Only Operating Permit.

Describe and cite all applicable requirements pertaining to all source groups.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

Group Number	Citation Number	Citation Limitation	Limitation Used
<i>Group 1</i>	<i>40 CFR Part 63, Subpart O</i>	<i>No proposed changes from requirements listed in TVOP No. 39-00055</i>	<i>N/A</i>
<i>Group 2</i>	<i>25 Pa. Code Chapter 123, 40 CFR Part 60 Subparts IIII and JJJJ and 40 CFR Part 63, Subpart ZZZZ</i>	<i>No proposed changes from requirements listed in TVOP No. 39-00055</i>	<i>N/A</i>

Please read instructions carefully before completing this application.

Section 5 - Combustion Operational Inventory – N/A

(Complete this section for each combustion source in this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new combustion unit listed in Section 3 of this application.

5.1 General Source Information

- a. Unit ID No.: _____ b. Company Designation: _____
- c. Plan Approval or Operating Permit Number: _____
- d. Manufacturer: _____ e. Model Number: _____
- f. Source Description: _____
- g. Rated Heat Input/Thruput: _____ h. Installation Date: _____
- i. Exhaust Temperature: _____ Units: _____ j. Exhaust % Moisture: _____ k. Exhaust Flow Volume: _____ SCFM

5.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow

5.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence

Please read instructions carefully before completing this application.

5.4 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)
N/A				

*FML = Fuel Material Location

5.5 Limitations on Source Operation (optional)

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

5.6 Compliance Method for this source (for Synthetic Minor Sources only)

Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 5.5.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

5.7 Source Potential to Emit (for Synthetic Minor Sources only)

Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or proposed in Section 5.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

5.8 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right.

No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 6 - Incinerator Operational Inventory – N/A

(Complete this section for each incinerator at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

6.1 General Source Information

a. Unit ID: _____ b. Company Designation: _____

c. Plan Approval or Operating Permit Number: _____

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: _____

g. Rated Heat Input/Thruput: _____ h. Installation Date: _____

i. Exhaust Temperature: _____ Units: _____ j. Exhaust % Moisture: _____ k. Exhaust Flow Volume: _____ SCFM

l. Inc. Capacity: _____ Lbs/Hr m. Primary Burner Heat Input: _____ Units: _____

n. Exhaust % CO₂: _____ o. Secondary Burner Heat Input: _____ Units: _____

p. Incinerator Class: _____

q. Waste Type: _____ r. Waste BTU/lb: _____

6.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow

Please read instructions carefully before completing this application.

6.3 Source Classification Code (SCC) Listing for Standard Operation			
Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence

6.4 Maximum Fuel Physical Characteristics				
If taking limitations on Fuel Physical Characteristics, see instructions.				
SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

6.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only)	
Maximum amount of hours of source operation per year: _____	
<input type="checkbox"/>	Hours of Operation
<input type="checkbox"/>	Production Throughput Rate
<input type="checkbox"/>	Type of Fuel
<input type="checkbox"/>	Fuel Usage
<input type="checkbox"/>	Control Devices
<input type="checkbox"/>	Emissions Limitations
<input type="checkbox"/>	Other

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

6.6 Compliance Method for this source (for Synthetic Minor Sources only)
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 6.5.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

6.7 Source Potential to Emit (for Synthetic Minor Sources only)
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 6.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

6.8 Source Applicable Requirements
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)
<i>2-03-001-01</i>	<i>FML03</i>	<i><0.0015 wt%</i>	<i>Negligible</i>	<i>~ 137,000 BTU/Gal</i>

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A^(a)

^(a) **B. Braun assumed 500 hours per year as a worst-case operation for PTE purposes.**

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 004 b. Company Designation: FIRE PUMP - 100HP DIESEL

c. Plan Approval or Operating Permit Number: TVOP No. 39-00055

d. Manufacturer: Clarke Fire Protection Prod. – John Deere e. Model Number: JU6H-UFG8

f. Source Description: Process

g. Rated Heat Input/Thruput: ~ 149 HP h. Installation Date: 01/20/2008

i. Exhaust Temperature: ~ 756 Units: °F j. Exhaust % Moisture: ~ 0-5% k. Exhaust Flow Volume: ~ 774 ACFM

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
004	Process	S09	Point of Air Emission	100

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Diesel	2-03-001-01	~ 5.4 Gal/hr	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)
<i>2-03-001-01</i>	<i>FML03</i>	<i><0.0015 wt%</i>	<i>Negligible</i>	<i>~ 137,000 BTU/Gal</i>

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A^(a)

^(a) **B. Braun assumed 500 hours per year as a worst-case operation for PTE purposes.**

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: <u>101</u>	b. Company Designation: <u>STERILIZER - 1000 CU FT</u>
c. Plan Approval or Operating Permit Number: <u>TVOP No. 39-00055</u>	
d. Manufacturer: <u>ETC</u>	e. Model Number: <u>33714</u>
f. Source Description: <u>Process</u>	
g. Rated Heat Input/Thruput: <u>~ 656 ft³</u>	h. Installation Date: <u>01/01/1987</u>
i. Exhaust Temperature: <u>~ 52</u> Units: <u>°C</u>	j. Exhaust % Moisture: <u>~ 5</u>
k. Exhaust Flow Volume: <u>≤ 250</u> SCFM ^(a) <u>≤ 2,000</u>	

^(a) **Top value represents the exhaust flow from the vacuum pump to the scrubber. The bottom value represents the exhaust flow through the rear chamber exhaust.**

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
101	Process	C002	Control Device	Variable
101	Process	S23	Point of Air Emission	Variable
C002	Control Device	S02	Point of Air Emission	Variable

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Ethylene Oxide	3-15-020-01	196.7 tons/yr (all sterilizers)	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: <u>102</u>	b. Company Designation: <u>STERILIZER - 1000 CU FT</u>
c. Plan Approval or Operating Permit Number: <u>TVOP No. 39-00055</u>	
d. Manufacturer: <u>AMSCO</u>	e. Model Number: <u>363365</u>
f. Source Description: <u>Process</u>	
g. Rated Heat Input/Thruput: <u>~ 656 ft³</u>	h. Installation Date: <u>01/01/1987</u>
i. Exhaust Temperature: <u>~ 52</u> Units: <u>°C</u>	j. Exhaust % Moisture: <u>~ 5</u>
k. Exhaust Flow Volume: <u>≤ 250</u> SCFM ^(a) <u>≤ 2,000</u>	

^(a) **Top value represents the exhaust flow from the vacuum pump to the scrubber. The bottom value represents the exhaust flow through the rear chamber exhaust.**

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
102	Process	C002	Control Device	Variable
102	Process	S23	Point of Air Emission	Variable
C002	Control Device	S02	Point of Air Emission	Variable

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Ethylene Oxide	3-15-020-01	196.7 tons/yr (all sterilizers)	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 103 b. Company Designation: STERILIZER - 1000 CU FT

c. Plan Approval or Operating Permit Number: TVOP No. 39-00055

d. Manufacturer: ETC e. Model Number: 1124

f. Source Description: Process

g. Rated Heat Input/Thruput: ~ 656 ft³ h. Installation Date: 01/01/1986

i. Exhaust Temperature: ~ 52 Units: °C j. Exhaust % Moisture: ~ 5 k. Exhaust Flow Volume: ≤ 250 ≤ 2,000 SCFM^(a)

(a) Top value represents the exhaust flow from the vacuum pump to the scrubber. The bottom value represents the exhaust flow through the rear chamber exhaust.

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
103	Process	C002	Control Device	Variable
103	Process	S23	Point of Air Emission	Variable
C002	Control Device	S02	Point of Air Emission	Variable

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Ethylene Oxide	3-15-020-01	196.7 tons/yr (all sterilizers)	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: <u>104</u>	b. Company Designation: <u>STERILIZER - 1000 CU FT</u>
c. Plan Approval or Operating Permit Number: <u>TVOP No. 39-00055</u>	
d. Manufacturer: <u>VACUDYNE</u>	e. Model Number: <u>J70-49</u>
f. Source Description: <u>Process</u>	
g. Rated Heat Input/Thruput: <u>~ 656 ft³</u>	h. Installation Date: <u>01/01/1990</u>
i. Exhaust Temperature: <u>~ 52</u> Units: <u>°C</u>	j. Exhaust % Moisture: <u>~ 5</u>
k. Exhaust Flow Volume: <u>≤ 250</u> <u>≤ 2,000</u> SCFM ^(a)	

^(a) Top value represents the exhaust flow from the vacuum pump to the scrubber. The bottom value represents the exhaust flow through the rear chamber exhaust.

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
104	Process	C002	Control Device	Variable
104	Process	S23	Point of Air Emission	Variable
C002	Control Device	S02	Point of Air Emission	Variable

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Ethylene Oxide	3-15-020-01	196.7 tons/yr (all sterilizers)	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: <u>105</u>	b. Company Designation: <u>STERILIZER - 1200 CU FT</u>
c. Plan Approval or Operating Permit Number: <u>TVOP No. 39-00055</u>	
d. Manufacturer: <u>VACUDYNE</u>	e. Model Number: <u>J78-65</u>
f. Source Description: <u>Process</u>	
g. Rated Heat Input/Thruput: <u>~ 820 ft³</u>	h. Installation Date: <u>01/01/1997</u>
i. Exhaust Temperature: <u>~ 52</u> Units: <u>°C</u>	j. Exhaust % Moisture: <u>~ 5</u>
k. Exhaust Flow Volume: <u>≤ 250</u> SCFM ^(a) <u>≤ 2,000</u>	

^(a) **Top value represents the exhaust flow from the vacuum pump to the scrubber. The bottom value represents the exhaust flow through the rear chamber exhaust.**

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
105	Process	C002	Control Device	Variable
105	Process	S23	Point of Air Emission	Variable
C002	Control Device	S02	Point of Air Emission	Variable

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Ethylene Oxide	3-15-020-01	196.7 tons/yr (all sterilizers)	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: <u>106</u>	b. Company Designation: <u>STERILIZER - 1250 CU FT</u>
c. Plan Approval or Operating Permit Number: <u>TVOP No. 39-00055</u>	
d. Manufacturer: <u>STI</u>	e. Model Number: <u>STI-1300</u>
f. Source Description: <u>Process</u>	
g. Rated Heat Input/Thruput: <u>~ 820 ft³</u>	h. Installation Date: <u>01/01/1996</u>
i. Exhaust Temperature: <u>~ 52</u> Units: <u>°C</u>	j. Exhaust % Moisture: <u>~ 5</u>
k. Exhaust Flow Volume: <u>≤ 250</u> <u>≤ 2,000</u> SCFM ^(a)	

^(a) **Top value represents the exhaust flow from the vacuum pump to the scrubber. The bottom value represents the exhaust flow through the rear chamber exhaust.**

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
106	Process	C002	Control Device	Variable
106	Process	S23	Point of Air Emission	Variable
C002	Control Device	S02	Point of Air Emission	Variable

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
<i>Ethylene Oxide</i>	<i>3-15-020-01</i>	<i>196.7 tons/yr (all sterilizers)</i>	<i>N/A</i>

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 107 b. Company Designation: STERILIZER - 3700 CU FT

c. Plan Approval or Operating Permit Number: TVOP No. 39-00055

d. Manufacturer: VACUDYNE e. Model Number: J91-24

f. Source Description: Process

g. Rated Heat Input/Thruput: ~ 1,968 ft³ h. Installation Date: 01/01/1998

i. Exhaust Temperature: ~ 52 Units: °C j. Exhaust % Moisture: ~ 5 k. Exhaust Flow Volume: ≤ 250 ≤ 2,000 SCFM^(a)

^(a) **Top value represents the exhaust flow from the vacuum pump to the scrubber. The bottom value represents the exhaust flow through the rear chamber exhaust.**

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
107	Process	C002	Control Device	Variable
107	Process	S23	Point of Air Emission	Variable
C002	Control Device	S02	Point of Air Emission	Variable

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Ethylene Oxide	3-15-020-01	196.7 tons/yr (all sterilizers)	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 108 b. Company Designation: STERILIZER - 130 CU FT

c. Plan Approval or Operating Permit Number: TVOP No. 39-00055

d. Manufacturer: STI e. Model Number: STI-150

f. Source Description: Process

g. Rated Heat Input/Thruput: ~ 82 ft³ h. Installation Date: 01/01/1994

i. Exhaust Temperature: ~ 52 Units: °C j. Exhaust % Moisture: ~ 5 k. Exhaust Flow Volume: ≤ 250 ≤ 2,000 SCFM^(a)

(a) Top value represents the exhaust flow from the vacuum pump to the scrubber. The bottom value represents the exhaust flow through the rear chamber exhaust.

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
108	Process	C002	Control Device	Variable
108	Process	S23	Point of Air Emission	Variable
C002	Control Device	S02	Point of Air Emission	Variable

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Ethylene Oxide	3-15-020-01	196.7 tons/yr (all sterilizers)	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 110 b. Company Designation: AERATION ROOM

c. Plan Approval or Operating Permit Number: TVOP No. 39-00055

d. Manufacturer: N/A e. Model Number: N/A

f. Source Description: Process

g. Rated Heat Input/Thruput: N/A h. Installation Date: 01/01/1998

i. Exhaust Temperature: ~ 40 Units: °C j. Exhaust % Moisture: ~ 0 k. Exhaust Flow Volume: ≤ 16,000 ACFM

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
<i>110</i>	<i>Process</i>	<i>C001</i>	<i>Control Device</i>	<i>100</i>
<i>C001</i>	<i>Control Device</i>	<i>S01</i>	<i>Point of Air Emission</i>	<i>100</i>

7.3 Source Classification Code (SCC) Listing for Standard Operation – N/A

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 111 b. Company Designation: EMERGENCY GENERATOR 2

c. Plan Approval or Operating Permit Number: TVOP No. 39-00055

d. Manufacturer: ONAN – Ford Power Products e. Model Number: LSG-8751-6003-6

f. Source Description: Process

g. Rated Heat Input/Thruput: ~ 173 HP h. Installation Date: 01/01/1989

i. Exhaust Temperature: ~ 1,025 Units: °F j. Exhaust % Moisture: ~ 0 k. Exhaust Flow Volume: ~ 271 SCFM

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
111	Process	S04	Point of Air Emission	100

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Natural Gas	2-03-002-01	~ 1,482 CFM @ full load	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)
<i>2-03-002-01</i>	<i>FML01</i>	<i>Negligible</i>	<i>Negligible</i>	<i>~ 1,050 BTU/SCF</i>

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A^(a)

^(a) **B. Braun assumed 500 hours per year as a worst-case operation for PTE purposes.**

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 113 b. Company Designation: FIRE PUMP 1

c. Plan Approval or Operating Permit Number: TVOP No. 39-00055

d. Manufacturer: CUMMINS e. Model Number: 6BTA59F2

f. Source Description: Process

g. Rated Heat Input/Thruput: ~ 110 HP h. Installation Date: 01/01/1993

i. Exhaust Temperature: ~ 788 Units: °F j. Exhaust % Moisture: ~ 0 k. Exhaust Flow Volume: ~ 198 SCFM

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
113	Process	S05	Point of Air Emission	100

7.3 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence
Diesel	2-03-001-01	~ 7 Gal/hr	N/A

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)
<i>2-03-001-01</i>	<i>FML03</i>	<i><0.0015 wt %</i>	<i>Negligible</i>	<i>~ 137,000 BTU/Gal</i>

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A^(a)

^(a) **B. Braun assumed 500 hours per year as a worst-case operation for PTE purposes.**

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 7 – Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).
 For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 117 b. Company Designation: Introcan

c. Plan Approval or Operating Permit Number: TVOP No. 39-00055

d. Manufacturer: N/A e. Model Number: N/A

f. Source Description: Process

g. Rated Heat Input/Thruput: N/A h. Installation Date: 2013

i. Exhaust Temperature: N/A Units: °F j. Exhaust % Moisture: N/A k. Exhaust Flow Volume: N/A SCFM

7.2 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
117	Process	S22	Point of Air Emission	100

7.3 Source Classification Code (SCC) Listing for Standard Operation – N/A

Fuel/Material	Associated SCC	Max. Throughput Rate	Firing Sequence

Please read instructions carefully before completing this application.

7.4 Maximum Fuel Physical Characteristics – N/A

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.5 Limitations on Source Operation (optional) (for Synthetic Minor Sources only) – N/A

Maximum amount of hours of source operation per year: _____

<input type="checkbox"/>	Hours of Operation	
<input type="checkbox"/>	Production Throughput Rate	
<input type="checkbox"/>	Type of Fuel	
<input type="checkbox"/>	Fuel Usage	
<input type="checkbox"/>	Control Devices	
<input type="checkbox"/>	Emissions Limitations	
<input type="checkbox"/>	Other	

Describe how the elected restriction(s) will allow the facility to become a Synthetic Minor?

Please read instructions carefully before completing this application.

7.6 Compliance Method for this source (for Synthetic Minor Sources only) – N/A
Complete this section only if limitation(s) and/or restriction(s) were proposed in Section 7.6.

a. Explain how you would demonstrate compliance with the restriction(s) and/or limitation(s):

b. Describe what is to be reported in the compliance report:

c. Reporting start date: _____

d. Indicate the frequency for submitting compliance report as explained above: _____

7.7 Source Potential to Emit (for Synthetic Minor Sources only) – Refer to Attachment C
 Give Potential Emission estimate for all air pollutants emitted at this source. Calculations for the Potential Emissions Estimate here should have included the restriction(s) and/or limitation(s) proposed in Section 7.5, if applicable.

Pollutant or CAS Number	Fuel/SCC	Emissions/Activity Allowable per Unit	Calc. Method	Max. Capacity	Total Hours	Emission in TPY

7.8 Source Applicable Requirements – Please refer to TVOP No. 39-00055.
 Describe and cite all applicable requirements pertaining to this source.
 Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.
 For renewals, only list group level requirements not included in the current State Only Operating Permit. If there are no changes, check the box to the right. No changes from current State Only Operating Permit.

Fuel/SCC	Citation Number	Citation Limitation	Limitation Used

Please read instructions carefully before completing this application.

Section 8 – Control Device Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new control device listed in Section 3 of this application.

8.1 General Control Device Information

a. Unit ID: C001 b. Company Designation: CATALYTIC OXIDIZER

c. Used by Sources: 110

d. Type: Catalytic Oxidizer w/o heat exchange

e. Pressure Drop in H₂O: 7 f. Capture Efficiency: 100%

g. Scrubber Flow Rate (GPM): ≤ 16,000 ACFM (maximum inlet flow)

h. Manufacturer: DONALDSON i. Model Number: N/A

j. Installation Date: 12/1997

8.2 Control Device Efficiencies for this Control Device:

Pollutant Name	CAS Number	Estimated Control Efficiency	Basis for Efficiency Estimate
<i>Ethylene Oxide</i>	<i>75-21-8</i>	<i>99 % or 1 ppmv outlet concentration</i>	<i>40 CFR Part 63, Subpart O Testing</i>

Please read instructions carefully before completing this application.

Section 8 – Control Device Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new control device listed in Section 3 of this application.

8.1 General Control Device Information

a. Unit ID: C002 b. Company Designation: WET SCRUBBER DEOXX UNIT

c. Used by Sources: 101, 102, 103, 104, 105, 106, 107, 108

d. Type: Wet Scrubber Deoxx Unit

e. Pressure Drop in H₂O: N/A f. Capture Efficiency: N/A

g. Scrubber Flow Rate (GPM): ≤ 500 CFM

h. Manufacturer: CHEMROX i. Model Number: 84-186

j. Installation Date: 1984

8.2 Control Device Efficiencies for this Control Device:

Pollutant Name	CAS Number	Estimated Control Efficiency	Basis for Efficiency Estimate
<i>Ethylene Oxide</i>	<i>75-21-8</i>	<i>99 %</i>	<i>40 CFR Part 63, Subpart O Testing</i>

Please read instructions carefully before completing this application.

Section 9 – Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

9.1 General Stack/Vent Information

a. Unit ID: S01 b. Company Designation: STK- CATA.OXIDIZER

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 3.5 ft Height (ft): 10.5 ft Base Elevation (ft): 380.0 ft

e. Exhaust Temperature: ~ 315 °F Exhaust % Moisture: ~ 0 Exhaust Velocity: ~10.6 m/s

f. Exhaust Volume: ≤ 20,000 ACFM Exhaust Volume: ~ 18,400 SCFM

g. Distance to Nearest Property Line (ft): 240 ft

h. Weather Cap?: Yes No

i. Used by Sources: C001

j. Latitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"

Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant entrance

a. Unit ID: S02 b. Company Designation: STK- DEOXX UNIT

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 0.5 ft Height (ft): 5.0 ft Base Elevation (ft): 380.0 ft

e. Exhaust Temperature: ≤ 68 °C Exhaust % Moisture: ~ 0 Exhaust Velocity: ~ 10.4 m/s

f. Exhaust Volume: ≤ 400 ACFM Exhaust Volume: ≤ 339 SCFM

g. Distance to Nearest Property Line (ft): 180 ft

h. Weather Cap?: Yes No

i. Used by Sources: C002

j. Latitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"

Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant entrance

Please read instructions carefully before completing this application.

Section 9 – Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

9.1 General Stack/Vent Information

a. Unit ID: S04 b. Company Designation: STK- EMER.GENERATOR 2

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 0.25 ft Height (ft): 19.75 ft Base Elevation (ft): 395.8 ft

e. Exhaust Temperature: ~1,025 °F Exhaust % Moisture: ~ 0 Exhaust Velocity: ~ 258 ft/s

f. Exhaust Volume: ~ 759 ACFM Exhaust Volume: ~ 271 SCFM

g. Distance to Nearest Property Line (ft): 540 ft

h. Weather Cap?: Yes No

i. Used by Sources: 111

j. Latitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"
 Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant entrance

a. Unit ID: S05 b. Company Designation: STK- FIRE PUMP

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 0.33 ft Height (ft): 7.33 ft Base Elevation (ft): 380.0 ft

e. Exhaust Temperature: ~ 788 °F Exhaust % Moisture: ~ 0 Exhaust Velocity: ~ 89 ft/s

f. Exhaust Volume: ~ 466 ACFM Exhaust Volume: ~ 198 SCFM

g. Distance to Nearest Property Line (ft): 150 ft

h. Weather Cap?: Yes No

i. Used by Sources: 113

j. Latitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"
 Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant entrance

Please read instructions carefully before completing this application.

Section 9 – Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

9.1 General Stack/Vent Information

a. Unit ID: S08 b. Company Designation: EMERGENCY GEN (605HP) STACK

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): Unknown Height (ft): Unknown Base Elevation (ft): Unknown

e. Exhaust Temperature: 200 °F Exhaust % Moisture: ~ 5 Exhaust Velocity: Unknown

f. Exhaust Volume: ~ 100 ACFM Exhaust Volume: ~ 76 SCFM

g. Distance to Nearest Property Line (ft): Unknown

h. Weather Cap?: Yes No

i. Used by Sources: 003

j. Latitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"
 Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant entrance

a. Unit ID: S09 b. Company Designation: FIRE PUMP (100HP) STACK

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): Unknown Height (ft): Unknown Base Elevation (ft): Unknown

e. Exhaust Temperature: ~ 200 °F Exhaust % Moisture: ~ 5 Exhaust Velocity: Unknown

f. Exhaust Volume: ~ 100 ACFM Exhaust Volume: ~ 76 SCFM

g. Distance to Nearest Property Line (ft): Unknown

h. Weather Cap?: Yes No

i. Used by Sources: 004

j. Latitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"
 Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant entrance

Please read instructions carefully before completing this application.

Section 9 – Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

9.1 General Stack/Vent Information

a. Unit ID: S22 b. Company Designation: Introcan Stack

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 1.50 ft Height (ft): 13.33 ft Base Elevation (ft): 338.00 ft

e. Exhaust Temperature: ~ 70 °F Exhaust % Moisture: ~ 50% RH Exhaust Velocity: ~ 29.7 ft/s

f. Exhaust Volume: ~ 3,154 ACFM Exhaust Volume: ~ 3,000 SCFM

g. Distance to Nearest Property Line (ft): Unknown

h. Weather Cap?: Yes No

i. Used by Sources: 117

j. Latitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"
 Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant entrance

a. Unit ID: S23 b. Company Designation: Common Rear Sterilizer Exhaust Stack

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 2.08 ft Height (ft): 9 ft Base Elevation (ft): ~ 380 ft

e. Exhaust Temperature: ~ 52 °C Exhaust % Moisture: ~ 50 Exhaust Velocity: 73 ft/s

f. Exhaust Volume: <15,000 ACFM Exhaust Volume: <12,500 SCFM

g. Distance to Nearest Property Line (ft): 215 ft

h. Weather Cap?: Yes No

i. Used by Sources: 101, 102, 103, 104, 105, 106, 107, and 108

j. Latitude: 40° 38' 23.7253" Longitude: -75° 26' 39.0551"
 Horizontal Reference Datum: NAD83 Horizontal Collection Method: Unknown Reference Point: Plant entrance

Please read instructions carefully before completing this application.

Section 10 – Fuel Material Location (FML) Information (Optional) – N/A – no changes from TVOP No. 39-00055

For renewals, review and correct any pre-printed information and add additional sections for any new FML listed in Section 3 of this application.

10.1 Fuel Material Location Information

a. FML ID Number: _____ b. Name: _____

c. Capacity: _____ Units: _____ d. Fuel: _____

e. Maximum Fuel Characteristics: If fuel is coal, what is the moisture content? _____
% Ash: _____ % Sulfur: _____ BTU Content: _____ Units: _____

f. Used by Source: _____

a. FML ID Number: _____ b. Name: _____

c. Capacity: _____ Units: _____ d. Fuel: _____

e. Maximum Fuel Characteristics: If fuel is coal, what is the moisture content? _____
% Ash: _____ % Sulfur: _____ BTU Content: _____ Units: _____

f. Used by Source: _____

a. FML ID Number: _____ b. Name: _____

c. Capacity: _____ Units: _____ d. Fuel: _____

e. Maximum Fuel Characteristics: If fuel is coal, what is the moisture content? _____
% Ash: _____ % Sulfur: _____ BTU Content: _____ Units: _____

f. Used by Source: _____

Please read instructions carefully before completing this application.

Section 11 – Alternative Operating Scenario (optional) – N/A

(Duplicate this section for each source participated in this alternative scenarios)

11.1 General Information

- a. Alternative Operating Scenario Name or ID No.: _____
- b. Source ID No.: _____ c. Source Name: _____
- d. Source Type (check one): Combustion Incinerator Process
- e. Give a brief description of this alternative scenario stating how it is different from the standard operation:

11.2 Operational Flexibility Request

Check all that apply.

- Alternative exhaust system component configuration.
If this box is checked, complete Sections 11.3 and 11.7
- Alternative type of fuel replacing or in addition to an existing fuel in standard operation.
If this box is checked, complete Sections 11.4 and/or 11.5 and 11.7
- Alternative process method replacing or in addition to a process SCC existing in standard operation.
If this box is checked, complete Sections 11.6 and 11.7
- Alternative lower limitations.

11.3 Exhaust System Components

Specify the complete exhaust system component configuration for this alternative operating scenario.

From Component Type	From Component Number	To Component Type	To Component Number	Percent Flow	Begin Date	End Date

Please read instructions carefully before completing this application.

11.4 Source Classification Code (SCC) Listing for Alternative Operation			
Give a complete listing of all fuels burned, products produced by a process or waste incinerated for this alternative operating scenario.			
Fuel	Associated SCC	Max. Throughput Rate	Firing Sequence

11.5 Alternative Fuel Physical Characteristics				
Give a complete listing of all fuels physical characteristics for this alternative operating scenario.				
SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

11.6 Alternative Process/Product Description	
a. Briefly describe the change(s) in raw materials and/or process methods used in this operating scenario, if applicable:	
b. Provide and briefly describe the process SCC associated with this alternative operating scenario:	
Process SCC:	SCC Description:
c. Alternative Product(s):	

Please read instructions carefully before completing this application.

Section 12 – Compliance Plan for the Facility

- | | | | |
|------|--|-------------------------------------|--------------------------|
| | | Yes | No |
| 12.1 | Will your facility be in compliance with all applicable requirements at the time of permit issuance and continue to comply with these requirements during the permit duration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12.2 | Will your facility be in compliance with all applicable requirements presently scheduled to take effect during the term of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12.3 | Will these requirements be met by the regulatory required dates? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If you checked "NO" in part 12.1, 12.2 or 12.3, answer the following questions:

12.4 Identify applicable requirement(s) for which compliance is not or will not be achieved:

Source ID Number	Citation Number
N/A	

12.4.1 Briefly describe how compliance with this/these applicable requirement(s) will be achieved:

N/A

Please read instructions carefully before completing this application.

Section 13 – Certification of Compliance for Synthetic Minor Source

In order for this Synthetic Minor facility to avoid the State-Only Operating Permit requirements, the applicant must agree to be bound by the emissions limitation(s) and/or restriction(s) contained in this application. In addition, the applicant must agree that these emission limitation(s) are enforceable by the Department, the Environmental Protection Agency and the citizens.

13.1 Schedule for Compliance Certification Submission

a. Frequency of submittal: N/A

b. Beginning date: N/A

13.2 Certification of Compliance (for Synthetic Minor Facility only)

I certify under the penalty of 18 Pa. CS 4904 (b) (2) that the sources covered by this application will comply with the emission limitations and other requirements contained in this application and all previously issued plan approvals and operating permits. I further certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

(Signed) Rex H. Boland

Date 11-7-19

Name (Typed) Rex Boland

Title: VP/GM of Allentown Operations

**ATTACHMENT B
COMPLIANCE REVIEW FORM**



COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF AIR QUALITY

AIR POLLUTION CONTROL ACT COMPLIANCE REVIEW FORM

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Type of Compliance Review Form Submittal (check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Original Filing | Date of Last Compliance Review Form Filing: |
| <input checked="" type="checkbox"/> Amended Filing | <u>08/02/2018</u> |

Type of Submittal

- | | | |
|---|--|--|
| <input type="checkbox"/> New Plan Approval | <input checked="" type="checkbox"/> New Operating Permit | <input type="checkbox"/> Renewal of Operating Permit |
| <input type="checkbox"/> Extension of Plan Approval | <input type="checkbox"/> Change of Ownership | <input type="checkbox"/> Periodic Submission (@ 6 mos) |
| <input type="checkbox"/> Other: _____ | | |

SECTION A. GENERAL APPLICATION INFORMATION

Name of Applicant/Permittee/("applicant")
 (non-corporations-attach documentation of legal name)

B. Braun Medical Inc.

Address 901 Marcon Blvd.
Allentown, PA 18109

Telephone (610) 596-2584 **Taxpayer ID#** 23-211-6774

Permit, Plan Approval or Application ID# Title V Operating Permit No. 39-00055

Identify the form of management under which the applicant conducts its business (check appropriate box)

- | | | |
|---|--|---|
| <input type="checkbox"/> Individual | <input type="checkbox"/> Syndicate | <input type="checkbox"/> Government Agency |
| <input type="checkbox"/> Municipality | <input type="checkbox"/> Municipal Authority | <input type="checkbox"/> Joint Venture |
| <input type="checkbox"/> Proprietorship | <input type="checkbox"/> Fictitious Name | <input type="checkbox"/> Association |
| <input type="checkbox"/> Public Corporation | <input type="checkbox"/> Partnership | <input type="checkbox"/> Other Type of Business, specify below: |
| <input checked="" type="checkbox"/> Private Corporation | <input type="checkbox"/> Limited Partnership | |

Describe below the type(s) of business activities performed.

B. Braun Medical Inc. operates a surgical and medical instrument apparatus manufacturing facility.

SECTION B. GENERAL INFORMATION REGARDING "APPLICANT"

If applicant is a corporation or a division or other unit of a corporation, provide the names, principal places of business, state of incorporation, and taxpayer ID numbers of all domestic and foreign parent corporations (including the ultimate parent corporation), and all domestic and foreign subsidiary corporations of the ultimate parent corporation with operations in Pennsylvania. Please include all corporate divisions or units, (whether incorporated or unincorporated) and privately held corporations. (A diagram of corporate relationships may be provided to illustrate corporate relationships.) Attach additional sheets as necessary.

Unit Name	Principal Places of Business	State of Incorporation	Taxpayer ID	Relationship to Applicant
<i>B. Braun of America Inc.</i>	<i>824 12th Ave. Bethlehem, PA 18018</i>	<i>PA</i>	<i>23-211-5335</i>	<i>100% Owner of Applicant</i>
<i>B. Braun Medical Inc.</i>	<i>824 12th Ave. Bethlehem, PA 18018</i>	<i>PA</i>	<i>23-211-6774</i>	<i>Applicant</i>

SECTION C. SPECIFIC INFORMATION REGARDING APPLICANT AND ITS "RELATED PARTIES"

Pennsylvania Facilities. List the name and location (mailing address, municipality, county), telephone number, and relationship to applicant (parent, subsidiary or general partner) of applicant and all Related Parties' places of business, and facilities in Pennsylvania. Attach additional sheets as necessary.

Unit Name	Street Address	County and Municipality	Telephone No.	Relationship to Applicant
<i>B. Braun Medical Inc.</i>	<i>824 12th Ave. Bethlehem, PA 18018 (Corporate Offices)</i>	<i>Lehigh and Hanover</i>	<i>(610) 691-5400</i>	<i>Applicant</i>
<i>B. Braun Medical Inc.</i>	<i>901 Marcon Blvd. Allentown, PA 18109 (Manufacturing Division)</i>	<i>Lehigh and Hanover</i>	<i>(610) 596-2584</i>	<i>Applicant</i>
<i>B. Braun Medical Inc.</i>	<i>939 Marcon Blvd. Allentown, PA 18109</i>	<i>Lehigh and Hanover</i>	<i>(610) 266-0500</i>	<i>Applicant</i>
<i>B. Braun Medical Inc.</i>	<i>200 Boulder Drive Breinigsville, PA 18031</i>	<i>Lehigh and Upper Macungie</i>	<i>(610) 336-9595</i>	<i>Applicant</i>
<i>B. Braun Medical Inc.</i>	<i>944 Marcon Blvd. Allentown, PA 18109</i>	<i>Lehigh and Hanover</i>	<i>(610) 596-2584</i>	<i>Applicant</i>
<i>B. Braun Medical Inc.</i>	<i>861 Marcon Blvd. Allentown, PA 18109</i>	<i>Lehigh and Hanover</i>	<i>(484) 241-6767</i>	<i>Applicant</i>
<i>B. Braun Medical Inc.</i>	<i>871 Marcon Blvd. Allentown, PA 18109</i>	<i>Lehigh and Hanover</i>	<i>(484) 241-6767</i>	<i>Applicant</i>

Provide the names and business addresses of all general partners of the applicant and parent and subsidiary corporations, if any.

Name	Business Address
<i>None</i>	

List the names and business address of persons with overall management responsibility for the process being permitted (i.e. plant manager).

Name	Business Address
<i>Rex Boland (VP/GM of Allentown Operations)</i>	<i>901 Marcon Blvd. Allentown PA, 18109</i>

Plan Approvals or Operating Permits. List all plan approvals or operating permits issued by the Department or an approved local air pollution control agency under the APCA to the applicant or related parties that are currently in effect or have been in effect at any time 5 years prior to the date on which this form is notarized. This list shall include the plan approval and operating permit numbers, locations, issuance and expiration dates. Attach additional sheets as necessary.

Air Contamination Source	Plan Approval/ Operating Permit#	Location	Issuance Date	Expiration Date
<i>Facility</i>	<i>TVOP No. 39-00055</i>	<i>901 Marcon Blvd. Allentown, PA 18109</i>	<i>08/31/2016</i>	<i>08/31/2021</i>
<i>Facility</i>	<i>Plan Approval No. 39-00055A</i>	<i>901 Marcon Blvd. Allentown, PA 18109</i>	<i>05/06/2019</i>	<i>10/31/2020</i>

Compliance Background. (Note: Copies of specific documents, if applicable, must be made available to the Department upon its request.) List all documented conduct of violations or enforcement actions identified by the Department pursuant to the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. Attach additional sheets as necessary. See the definition of "documented conduct" for further clarification. Unless specifically directed by the Department, deviations which have been previously reported to the Department in writing, relating to monitoring and reporting, need not be reported.

Date	Location	Plan Approval/ Operating Permit#	Nature of Documented Conduct	Type of Department Action	Status: Litigation Existing/Continuing or Corrected/Date	Dollar Amount Penalty
<i>None</i>						\$
						\$
						\$
						\$
						\$
						\$
						\$
						\$
						\$
						\$

List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Litigation Existing/Continuing Or Corrected/Date
<i>None</i>				

CONTINUING OBLIGATION. Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional deviations occur between the date of submission and Department action on the application.

VERIFICATION STATEMENT

Subject to the penalties of Title 18 Pa.C.S. Section 4904 and 35 P.S. Section 4009(b)(2), I verify under penalty of law that I am authorized to make this verification on behalf of the Applicant/Permittee. I further verify that the information contained in this Compliance Review Form is true and complete to the best of my belief formed after reasonable inquiry. I further verify that reasonable procedures are in place to ensure that "documented conduct" and "deviations" as defined in 25 Pa Code Section 121.1 are identified and included in the information set forth in this Compliance Review Form.

Rex A. Boland

Signature

11-7-19

Date

Rex Boland

Name (Print or Type)

VP/GM of Allentown Operations

Title

ATTACHMENT C
POTENTIAL EMISSIONS CALCULATIONS

Table 1
B. Braun Medical Inc.
Potential Ethylene Oxide (EtO) Emissions from the Sterilization Units and Aeration Room

Source	EtO Throughput ^(e) (tons/yr)	Potential EtO Emissions (tons/yr)			Total
		Scrubber ^(b)	Catalytic Oxidizer ^(d)	Rear Chamber Exhaust ^(f)	
Source Group 1 ^(a)	196.74	1.95	0.48	1.55	3.97

^(a) Source Group 1 consists of eight sterilization units (Source IDs 101 through 108) and the Aeration Room (Source ID 110). The primary exhaust of each sterilizer is controlled by a common wet scrubber. The Aeration Room is controlled by a catalytic oxidizer.

^(b) Emissions rate from the wet scrubber are calculated using the following information:

Scrubber Control Efficiency: 99 %^(c)

^(c) As required by 40 CFR Part 63, Subpart O.

^(d) Emissions rate from the catalytic oxidizer are calculated using the following information:

Maximum Catalytic Oxidizer EtO Exhaust Concentration:	1.0	ppm ^(c)
EtO Molecular Weight:	44	lb/lb-mol
EtO Throughput:	393,470	lb/year ^(e)
Catalytic Oxidizer Rated Capacity:	16,000	cfm

^(e) Maximum throughput of EtO for all sterilization chambers based on total Facility-wide sterilization capacity of 77 pallets, 2 batches per day, and 7 pounds of EtO consumed per pallet. Maximum operation is 365 days per year.

^(f) Rear chamber exhaust emissions rates calculated based on the following information:

Sterilizer EtO Concentration:	50	ppm ^(g)
Batch Venting Time:	30	min/batch
Number of Batches:	112	total batches/week ^(h)
Sterilizer Rear Chamber Exhaust Volume:	3,100	cfm

^(g) Assumed average concentration for duration of venting time.

^(h) Calculated based on 8 sterilizers, 2 batches per day, and 7 days per week.

Calculations assume the following:

Annual Operation:	365 days/yr
Pound to Ton Conversion:	2,000 lb/ton
Minute to Hour Conversion:	60 min/hr
Gas Conversion:	385.35 scf/lb-mol

Table 2
B. Braun Medical Inc.
Potential Emissions from Boilers

Pollutant	Emissions Factors ^{(a)(b)(c)}	Emissions (tpy)				Total ^(f)
		Boiler 1 ^(d)	Boiler 2 ^(d)	Source ID 033 ^(e)	Source ID 034 ^(e)	
PM	1.90 lb/MMcf	0.08	0.08	0.17	0.17	0.51
PM _{CON}	5.70 lb/MMcf	0.24	0.24	0.51	0.51	1.52
PM ₁₀	7.60 lb/MMcf	0.32	0.32	0.69	0.69	2.02
PM _{2.5}	7.60 lb/MMcf	0.32	0.32	0.69	0.69	2.02
NO _x (Boilers 1 and 2)	100.00 lb/MMcf	4.27	4.27	--	--	17.56
NO _x (Source IDs 033 and 034)	50.00 lb/MMcf	--	--	4.51	4.51	
VOC	5.50 lb/MMcf	0.23	0.23	0.50	0.50	1.46
CO	84.00 lb/MMcf	3.59	3.59	7.57	7.57	22.33
SO ₂	0.60 lb/MMcf	0.03	0.03	0.05	0.05	0.16
Pb	5.00E-04 lb/MMcf	2.14E-05	2.14E-05	4.51E-05	4.51E-05	1.33E-04
CO ₂	120,019 lb/MMcf	5,128	5,128	10,823	10,823	31,902
N ₂ O	0.23 lb/MMcf	9.66E-03	9.66E-03	0.02	0.02	0.06
CH ₄	2.26 lb/MMcf	0.10	0.10	0.20	0.20	0.60
Formaldehyde	0.08 lb/MMcf	3.20E-03	3.20E-03	6.76E-03	6.76E-03	0.02
Hexane	1.80 lb/MMcf	0.08	0.08	0.16	0.16	0.48

^(a) Emissions factors, except for greenhouse gas emissions factors, obtained from U.S. EPA AP-42 Chapter 1, Section 4, Table 1.4-1 and Table 1.4-2. The Source ID 033 and 034 boilers will be installed with low NO_x burners.

^(b) PM₁₀/PM_{2.5} represents filterable and condensable portions.

^(c) Greenhouse gas emissions factors obtained from 40 CFR Part 98, Subpart C, Table C-1 and Table C-2.

^(d) B. Braun operates two 9.95 MMBtu/hr natural gas-fired boilers that are exempt from permit requirements, as combustion units rated at <10 MMBtu/hr.

^(e) B. Braun permitted two 21 MMBtu/hr natural gas-fired boilers as Source IDs 033 and 034 via Plan Approval No. 39-00055A.

^(f) Individual HAP with insignificant emissions have not been included in this table but are included in the Facility-wide PTE total HAP.

Calculations assume the following:

Boilers 1 and 2 Rating:	9.95 MMBtu/hr (each)
Boilers 033 and 034 Rating:	21 MMBtu/hr (each)
Btu to scf Conversion:	1,020 Btu/scf
Annual Operation:	8,760 hr/yr
Pound to Ton Conversion:	2,000 lb/ton

Table 3
B. Braun Medical Inc.
Cooling Towers Potential to Emit

Pollutant ^{(a)(b)}	Emissions Rate							
	2CT5 and 2CT6 ^(c)		5CT1, 5CT2, 5CT3 ^(f)		Source ID 120 ^(g)		Total	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
PM	0.12	0.54	0.79	3.45	0.24	1.06	1.15	5.06
PM _{2.5}	0.12	0.54	0.79	3.45	0.24	1.06	1.15	5.06
PM ₁₀	0.12	0.54	0.79	3.45	0.24	1.06	1.15	5.06

^(a) Emissions factors obtained from U.S. EPA AP-42 Chapter 13, Section 4, Table 13.4-1 assuming PM=PM_{2.5}=PM₁₀.

^(b) Note the following information was used to determine the potential emissions associated with the cooling towers:

Parameter	2CT5 and 2CT6	5CT1, 5CT2, 5CT3	Source ID 120	Units
Total circulating water (each unit)	1,950	4,950	2,849	gpm
Number of units operational at once	1	3	2	cooling towers
Drift loss ^(d)	0.005	0.005	0.005	%
Cycles of concentration	6	5	4	cycles
Total Dissolved Solids (TDS) ^(e)	353.5	353.5	353.5	mg/l
Margin	1.2	1.2	1.2	-
Hours in a year	8,760	8,760	8,760	hr/yr
Pound per ton	2,000	2,000	2,000	lb/ton
Density of water	8.34	8.34	8.34	lb/gal

^(c) B. Braun operates two 1,950 gallon per minute (gpm) cooling towers as 2CT 5 and 6 Air Compressor Room. Although there are two cooling towers, only one cell is operational at a time. Therefore, potential emissions are based on operating one cell.

^(d) Manufacturer guaranteed drift loss.

^(e) Per Lehigh County Authority Annual Water Quality Report 2018.

^(f) B. Braun operates three 4,950 gpm cooling towers as 5CT 1-3 Mechanical Room 5 Phase 5.

^(g) B. Braun permitted three 2,849 gpm cooling towers via Plan Approval No. 39-00055A. The third cell will be installed for redundancy and will not be operational at the same time as the first and second cells. Therefore, potential emissions are based on operating two cells.

Table 4
B. Braun Medical Inc.
Potential Emissions from Fire Pumps

Pollutant	Emissions Factors						Emissions (tpy)			Total ^(h)
	Source ID 004 ^(a)	Source	Source ID 113 ^(b)	Source	Source ID 118 ^(c)	Source	Source ID 004	Source ID 113	Source ID 118	
	Fire Pump 1		Fire Pump 2		Fire Pump 118		Fire Pump 1	Fire Pump 2	Fire Pump 118	
PM	0.04 lb/MMBtu	(d)	0.08 lb/MMBtu	(d)	0.05 lb/MMBtu	(g)	7.17E-03	0.02	0.02	0.05
PM ₁₀	0.04 lb/MMBtu	(d)	0.08 lb/MMBtu	(d)	0.05 lb/MMBtu	(g)	7.17E-03	0.02	0.02	0.05
PM _{2.5}	0.04 lb/MMBtu	(d)	0.08 lb/MMBtu	(d)	0.05 lb/MMBtu	(g)	7.17E-03	0.02	0.02	0.05
NO _x	1.61 lb/MMBtu	(d)	1.84 lb/MMBtu	(d)	0.88 lb/MMBtu	(g)	0.30	0.35	0.43	1.08
VOC	0.13 lb/MMBtu	(d)	0.50 lb/MMBtu	(d)	0.07 lb/MMBtu	(g)	0.02	0.09	0.03	0.15
CO	0.24 lb/MMBtu	(d)	0.67 lb/MMBtu	(d)	0.95 lb/MMBtu	(e)	0.05	0.13	0.47	0.64
SO ₂	0.28 lb/MMBtu	(e)	0.20 lb/MMBtu	(d)	0.29 lb/MMBtu	(e)	0.05	0.04	0.14	0.23
CO ₂	163.05		lb/MMBtu		(f)	30.38	30.94	80.47	141.78	
N ₂ O	1.32E-03		lb/MMBtu		(f)	2.46E-04	2.51E-04	6.53E-04	1.15E-03	
CH ₄	6.61E-03		lb/MMBtu		(f)	1.23E-03	1.25E-03	3.26E-03	5.75E-03	

^(a) B. Braun operate one 149 horsepower (HP) engine as Fire Pump 1 (i.e., Source ID 004).

^(b) B. Braun operate one 110 HP engine as Fire Pump 2 (i.e., Source ID 113).

^(c) B. Braun permitted one 282 HP engine as Source ID 118 via Plan Approval No. 39-00055A.

^(d) Emissions factors from vendor-provided emissions data.

^(e) Emissions factors obtained from U.S. EPA AP-42 Chapter 3.3, Tables 3.3-1 and 3.3-2.

^(f) Emissions factors obtained from 40 CFR Part 98, Subpart C, Tables C-1 and C-2.

^(g) Emissions factors obtained from 40 CFR Part 60, Subpart III Table 4.

^(h) Individual HAP with insignificant emissions have not been included in this table but are included in the Facility-wide PTE total HAP.

Calculations assume the following:

Fire Pump 1 Rating:	0.75 MMBtu/hr
Fire Pump 2 Rating:	0.76 MMBtu/hr
Fire Pump 118 Rating:	1.97 MMBtu/hr
Annual Operation:	500 hr/yr
Pound to Ton Conversion:	2,000 lb/ton

Table 5
B. Braun Medical Inc.
Potential Emissions from Emergency Generators

Pollutant	Emissions Factors						Emissions (tpy)			Total ⁽ⁱ⁾		
	Source ID 003 ^(a)	Source	Source ID 111 ^(b)		Source	Source ID 119 ^(c)		Source ID 003	Source ID 111		Source ID 119	
	E-Gen 1		Phase II E-Gen			E-Gen 119		E-Gen 1	Phase II E-Gen		E-Gen 119	
PM	0.08 lb/MMBtu	(d)	7.71E-05	lb/MMBtu	(g)	0.04	lb/MMBtu	(g)	0.08	1.98E-05	0.07	0.14
PM _{CON}	N/A	(d)	9.91E-03	lb/MMBtu	(g)	9.91E-03	lb/MMBtu	(g)	N/A	2.54E-03	0.02	0.02
PM ₁₀	0.08 lb/MMBtu	(d)	9.99E-03	lb/MMBtu	(g)	0.05	lb/MMBtu	(g)	0.08	2.56E-03	0.08	0.16
PM _{2.5}	0.08 lb/MMBtu	(d)	9.99E-03	lb/MMBtu	(g)	0.05	lb/MMBtu	(g)	0.08	2.56E-03	0.08	0.16
NO _x	2.81 lb/MMBtu	(d)	4.08	lb/MMBtu	(g)	0.63	lb/MMBtu	(h)	2.84	1.05	1.11	5.00
VOC	0.11 lb/MMBtu	(d)	0.12	lb/MMBtu	(g)	0.31	lb/MMBtu	(h)	0.11	0.03	0.55	0.70
CO	0.81 lb/MMBtu	(d)	0.32	lb/MMBtu	(g)	1.26	lb/MMBtu	(h)	0.82	0.08	2.22	3.12
SO ₂	0.20 lb/MMBtu	(d)	5.88E-04				lb/MMBtu	(g)	0.20	1.51E-04	1.03E-03	0.20
CO ₂	163.05 lb/MMBtu	(e)	116.98				lb/MMBtu	(e)	164.82	30.00	205.81	400.64
N ₂ O	1.32E-03 lb/MMBtu	(e)	2.20E-04				lb/MMBtu	(e)	1.34E-03	5.65E-05	3.88E-04	1.78E-03
CH ₄	6.61E-03 lb/MMBtu	(e)	2.20E-03				lb/MMBtu	(e)	6.69E-03	5.65E-04	3.88E-03	0.01
Acetaldehyde	7.67E-04 lb/MMBtu	(f)	8.36E-03				lb/MMBtu	(g)	7.75E-04	2.14E-03	0.01	0.02
Acrolein	9.25E-05 lb/MMBtu	(f)	5.14E-03				lb/MMBtu	(g)	9.35E-05	1.32E-03	9.04E-03	0.01
Formaldehyde	1.18E-03 lb/MMBtu	(f)	0.05				lb/MMBtu	(g)	1.19E-03	0.01	0.09	0.11

^(a) B. Braun operate one 605 horsepower (HP) diesel engine as E-Gen 1 (i.e., Source ID 003).

^(b) B. Braun operate one 173 HP natural gas-fired engine as the Phase II E-Gen (i.e., Source ID 111).

^(c) B. Braun permitted one 1,005 HP natural gas-fired engine as Source ID 119 via Plan Approval No. 39-00055A.

^(d) Emissions factors from vendor-provided emissions data.

^(e) Emissions factors obtained from 40 CFR Part 98, Subpart C, Tables C-1 and C-2.

^(f) Emissions factors obtained from U.S. EPA AP-42 Chapter 3.3, Tables 3.3-1 and 3.3-2.

^(g) Emissions factors obtained from U.S. EPA AP-42 Chapter 3.2, Tables 3.2-1 and 3.2-2.

^(h) Emissions factors obtained from 40 CFR Part 60, Subpart JJJJ.

⁽ⁱ⁾ Individual HAP with insignificant emissions have not been included in this table but are included in the Facility-wide PTE total HAP.

Calculations assume the following:

E-Gen 1 Rating:	4.04 MMBtu/hr
Phase II E-Gen Rating:	1.03 MMBtu/hr
E-Gen 119 Rating:	7.04 MMBtu/hr
Annual Operation:	500 hr/yr
Pound to Ton Conversion:	2,000 lb/ton

Table 6
B. Braun Medical Inc.
Potential VOC Emissions from Introcan Operation

Chemical in Solution	Hexane Amount in Solution, per Batch ^(a) (mL)	Chemical Amount in Solution, per Batch ^(a) (mL)	Solution Life (days)	Batches ^(a) (batches/year)	Post-Control VOC Emissions ^{(b)(c)(d)} (tpy)
1	8,900	600	7	50	0.01
2	5,000	75	3	117	0.01
3	4,900	160	3	117	0.01
4	7,500	500	1	350	0.06
Total Potential VOC Emissions					0.09

^(a) Maximum number of batches per year, based on shelf life and the anticipated operating schedule, were provided by Facility personnel.

^(b) Density and VOC content provided by Facility personnel.

^(c) Total potential VOC emissions account for the following solution mixtures: (1), (2) , and the max of either (3) or (4).

^(d) Annual emissions assume 350 days per year of operation. Annual emissions also assume that 100% of the VOC contained in the solution is emitted (i.e., emissions do not account for the quantity of solution that is disposed).

Calculations assume the following:

Control efficiency	96.7% 2017 source test average
Liter to gallon conversion	3.785 liters/gallon
Pound to gram conversion	0.00220462 pounds/gram
Gallon to milliliter conversion	0.00026417 gallon/mL
Pound to ton conversion	2,000 pounds/ton

Table 7
B. Braun Medical Inc.
Potential Emissions from Miscellaneous Combustion Equipment^{(a)(b)}

Pollutant	Emissions Factor			Total Emissions ^(g) (tpy)
	Value	Unit	Source	
NO _x	100	lb/MMscf	(c)	15.27
CO	84	lb/MMscf	(c)	12.83
SO ₂	0.6	lb/MMscf	(c)	0.09
VOC	5.5	lb/MMscf	(c)	0.84
PM	1.9	lb/MMscf	(c)(d)	0.29
PM _{2.5}	7.6	lb/MMscf	(c)(d)	1.16
PM ₁₀	7.6	lb/MMscf	(c)(d)	1.16
Pb	5.00E-04	lb/MMscf	(c)	7.63E-05
CO ₂	53.06	kg/MMBtu	(e)	18,219
N ₂ O	1.00E-04	kg/MMBtu	(e)	0.03
CH ₄	1.00E-03	kg/MMBtu	(e)	0.34
Formaldehyde	7.50E-02	lb/MMcf	(f)	0.01
Hexane	1.80E+00	lb/MMcf	(f)	0.27

^(a) B. Braun operates various combustion equipment that is exempt from permitting.

^(b) B. Braun proposed to install seventeen 0.2 MMBtu/hr air handlers, three 0.6 MMBtu/hr hot water heaters, one 0.3 MMBtu/hr hot water heater, and two 0.83 MMBtu/hr dehumidifiers as part of Plan Approval No. 39-00055A.

^(c) Emissions factors obtained from U.S. EPA AP-42 Chapter 1, Section 4, Table 1.4-1 and Table 1.4-2.

^(d) PM emissions factor is only filterable particulate. PM_{2.5} and PM₁₀ emissions factors are both filterable and condensable particulate.

^(e) Emissions factors obtained from 40 CFR Part 98, Subpart C, Table C-1 and Table C-2.

^(f) Emissions factors obtained from U.S. EPA AP-42 Chapter 1, Section 4, Table 1.4-3 and Table 1.4-4.

^(g) Individual HAP with insignificant emissions have not been included in this table but are included in the Facility-wide PTE total HAP.

Note that the following was used in the development of this table:

Existing Units

Humidifier 1	0.8 MMBtu/hr
Humidifier 2	0.8 MMBtu/hr
Print Shop Humidifier	0.14 MMBtu/hr
Water Heater 1	0.05 MMBtu/hr
Phase I HVAC Hot Water Boiler 1	1.8 MMBtu/hr
Phase I HVAC Hot Water Boiler 2	1.8 MMBtu/hr
Phase I Mechanical Room Water Heater	0.078 MMBtu/hr
Phase II Mechanical Room Water Heater	0.75 MMBtu/hr
Phase III Mechanical Room Hot Water Heater	0.3 MMBtu/hr
Aeration Hot Water Heater	0.474 MMBtu/hr
Low Pressure Steam Boiler	2.544 MMBtu/hr
0.3-MMBtu/hr Hot Water Heater	0.3 MMBtu/hr
Shipping/Staging Finished Goods Distribution Unit Heaters 1 - 5	0.75 MMBtu/hr (total)
Receiving East Unit Heaters 1 - 2	0.28 MMBtu/hr (total)
Raw Materials Unit Heater	1.25 MMBtu/hr
WIP Storeroom Unit Heater	0.5 MMBtu/hr
Sterilization Hallway Unit Heater	0.14 MMBtu/hr
Kit Sterilization Staging Unit Heater	0.4 MMBtu/hr
Fresh Air Intake Heater	0.7204 MMBtu/hr
Phase III HVAC Steam Humidification Boiler	1.05 MMBtu/hr
Catalytic Oxidizer	2.8 MMBtu/hr
Injection Molding Humidifier Rating:	0.5 MMBtu/hr
Phase II Mechanical Room Steam Boilers (3) Rating:	7.56 MMBtu/hr (total)
Steam Humidification Boiler Phase I Mechanical Room Rating:	2.52 MMBtu/hr
Compactor Room Space Heater Rating:	0.1 MMBtu/hr
Humidifier Air Handler Rating:	0.2 MMBtu/hr
Number of Air Handler Units:	17 units
Hot Water Heater Rating:	0.6 MMBtu/hr
Number of 0.6 MMBtu/hr Hot Water Heater Units:	3 units
Other Hot Water Heater:	0.3 MMBtu/hr
Extrusion Dehumidifier Rating:	0.83 MMBtu/hr
Number of Extrusion Dehumidifiers:	2 units

Total Facility-Wide Units

Total MMBtu/hr: 35.5588 MMBtu/hr

Table 8
B. Braun Medical Inc.
Total Potential Emissions

Pollutant	Facility-Wide Potential Emissions (tpy) ^{(a)(b)}
NO _x	38.91
CO	38.92
SO ₂	0.69
VOC	7.21
PM	6.04
PM _{2.5}	8.45
PM ₁₀	8.45
Pb	2.09E-04
CO ₂	50,662.95
N ₂ O	0.10
CH ₄	0.96
Single Highest HAP	3.97
Total HAP	5.01

^(a) Existing Source ID 116 (F-Line) is no longer in operation at the Facility and therefore, has not been included in Facility-wide potential emissions. B. Braun submitted an RFD to PADEP documenting the de-minimis emissions increase associated with E-line.

^(b) In the Plan Approval Application for Plan Approval No. 39-00055A, B. Braun noted that the injection molding process at the Facility is an insignificant source of emissions. Therefore, emissions associated with the injection molding process have not been included in Facility-wide potential emissions.

ATTACHMENT D
MUNICIPAL NOTIFICATION LETTERS

November 4, 2019

CERTIFIED MAIL

Amy L. Zanelli – District 3
Lehigh County Board of Commissioners
17 South 7th Street
Allentown, PA 18101-2400

**RE: PADEP Required County Notification – State Only Operating Permit
Application**

Dear Ms. Zanelli:

Pursuant to 25 Pa. Code §127.413, B. Braun Medical, Inc. (B. Braun) hereby notifies Lehigh County of its submittal of a State Only Operating Permit (SOOP) application to the Pennsylvania Department of Environmental Protection (PADEP). B. Braun owns and operates a surgical and medical instrument apparatus manufacturing facility at 901 Marcon Blvd. Allentown, PA (Facility). Currently B. Braun operates under Title V Operating Permit (TVOP) No. 39-00055. However, the air emissions of all pollutants from the Facility have consistently remained well below major source thresholds. Therefore, B. Braun is submitting a SOOP Application to PADEP in order to transition from a major source (Title V) operating permit to a non-major source (SOOP) operating permit.

PADEP will accept comments on the SOOP application during a 30-day period, which begins upon your receipt of this notification. A copy of the application is available for your review at PADEP's Northeast Regional Office in Wilkes-Barre, Pennsylvania. Any comments concerning the SOOP application should be transmitted to PADEP within 30 days of your receipt of this letter. If you have any questions or concerns regarding the above information, please contact me at (484) 240-8817.

Sincerely,
B. Braun Medical, Inc.



Eric Geder
EH&S Manager

November 4, 2019

CERTIFIED MAIL

Bruce Paulus, Chairman of Council
Hanover Township
2202 Grove Road
Allentown, PA 18109

RE: PADEP Required Municipal Notification – State Only Operating Permit Application

Dear Mr. Paulus:

Pursuant to 25 Pa. Code §127.413, B. Braun Medical, Inc. (B. Braun) hereby notifies Hanover Township of its submittal of a State Only Operating Permit (SOOP) application to the Pennsylvania Department of Environmental Protection (PADEP). B. Braun owns and operates a surgical and medical instrument apparatus manufacturing facility at 901 Marcon Blvd. Allentown, PA (Facility). Currently B. Braun operates under Title V Operating Permit (TVOP) No. 39-00055. However, the air emissions of all pollutants from the Facility have consistently remained well below major source thresholds. Therefore, B. Braun is submitting a SOOP Application to PADEP in order to transition from a major source (Title V) operating permit to a non-major source (SOOP) operating permit.

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Sincerely,
B. Braun Medical, Inc.



Eric Geder
EH&S Manager

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<input checked="" type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
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<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$0.55	
Total Postage and Fees	\$6.85	11/05/2019

Sent To: **Bruce Paulus, Chairman of Council**
 Hanover Township
 2202 Grove Rd.
 Allentown, PA 18109

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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ALLENTOWN, PA 18101

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<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input checked="" type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$0.55	
Total Postage and Fees	\$6.85	11/05/2019

Sent To: **Amy L. Zanelli-District 3**
 Lehigh County Board of Commissioners
 17 South 7th Street
 Allentown, PA 18101-2400

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions